

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of

JOSEPH B. VOLPE

Application No. 09/171,018

Filed: October 7, 1998

For: REAL-TIME, MULTIPLE PATH  
VIDEO IMAGING SYSTEM

Group Art Unit: 2612

Examiner: Lin Ye

Atty. Dkt. No. FV-01

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MS Appeal Brief - Patents  
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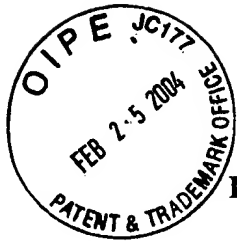
TRANSMITTAL OF APPELLANT'S BRIEF

Transmitted herewith in triplicate is the Appellant's Brief in this application with respect to the Granted Petition mailed September 25, 2003.

A check in the amount of \$165.00 is attached for the Appeal Brief. The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1768.

Respectfully submitted,

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APPELLANT'S BRIEF ON APPEAL

Honorable Commissioner for Patents  
Alexandria, VA 22313-1450

Technology Center 2600

Sir:

Appellants respectfully appeal the final rejection of claims 1, 2, 4, 5, 13, and 16-30 in the Office Action dated July 1, 2003. A Notice of Appeal was timely filed on September 25, 2003.

**I. REAL PARTY IN INTEREST**

The real party in interest is Fraser Volpe Corporation, assignee of 100% interest of the above-referenced patent application.

**II. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to Appellants, Appellants's legal representative or Assignee which would directly affect or be directly affected by or have a

bearing on the Board's decision in this appeal.

### **III. STATUS OF CLAIMS**

Claims 1, 2, 4, 5, 13, and 16-30 are all the claims in the Application are set forth fully in the attached Appendix.

Claim 18 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 1-2, 5, 13, 17-18, 21-24, 26, and 29-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Stauff et al U.S. Patent 5,486,853, in view of McClenahan et al U.S. Reg. No. H1, 891, and Baxter et al U.S. Patent 5,486,853. Claims 4 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Stauff et al U.S. Patent 5,486,853, in view of McClenahan et al U.S. Reg. No. H1, 891, Baxter et al U.S. Patent 5,486,853, and Rod U.S. Patent 5,924,868. Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Stauff et al. U.S. Patent 5,486,853, in view of McClenahan et al U.S. Reg. No. H1, 891, Baxter et al U.S. Patent 5,486,853, and Jenkins et al U.S. Patent 5,644,386. Claim 19-20 and 27-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Stauff et al. U.S. Patent 5,486,853, in view of McClenahan et al U.S. Reg. No. H1, 891, Baxter et al U.S. Patent 5,486,853, and Piety et al et al U.S. Patent 5,673,871.

Appellant respectfully appeals the rejections of claims 1, 2, 4, 5, 13, and 16-30.

#### **IV. STATEMENT OF AFTER-FINAL AMENDMENT**

An After-Final Amendment was filed by the Applicant. However, the proposed amendments were not entered by the Examiner. Therefore, the claims are pending as set forth in the Appendix.

In the After-Final Amendment, Appellant sought to overcome the 35 U.S.C. §112, second paragraph rejection by amending claims 1 and 18 to remove the “encoder” element from claim 1, which was intended to be listed in claim 18. However the amendment was denied by the Examiner. Therefore, Appellant understands that the claim element of “an encoder in said camera control unit, wherein said encoder adds source identifying information as a unique identification code to the electronic image signal with a video adder” is presently included in claim 1, and a nearly duplicate claim element is presented in claim 18.

#### **V. SUMMARY OF THE INVENTION**

The invention, as set forth and defined by independent claim 1, is a real time, multiple path imaging system. In an exemplary embodiment illustrated in Figure 2 of Application, the multiple path imaging system is a technological foundation for a military-style surveillance team. Military observers 101, 111, and 121 are provided with optical viewing devices, for example a pair of binoculars 102, 112, and 122, for surveilling a tank 105, half-track 115, and helicopter 125, respectively. Each observer has an optical viewing

device that is provided with a video camera that transmits a video signal to a camera control unit 103, 113, 123 worn by each observer. The camera control units transmit encoded video signals 107, 117, 127 to a central receiver and decoder 25 for selective display.

(Application, p. 5, line 24 - p.6, line 20).

The non-obvious and unique combination of features provides “an independent optical viewing device having at least one optical viewing path viewed through an eyepiece,” and “a beam splitter removably attached to said optical viewing device, wherein the beam splitter divides the at least one optical viewing path into a first and a second optical viewing paths,” as recited in claim 1. In Figure 4 of the Application, an exemplary” monocular body 10 includes an eyepiece 12 and an eye lens 14 mounted therein.”

(Application, p. 6, lines 25-28). Further, “an optical beam splitter 16 is interposed between the eye lens 14 and an observer’s eye 18.” (Application, p. 6, line 30 -35; Fig. 4) The invention further comprises “an electronic video imaging device that receives an optical image from the second split beam path and converts the optical image into an electronic image signal, wherein the video imaging device is removably attached in alignment with the eyepiece without internal modification of the basic optical viewing device and adjustable to accommodate varying sizes of eyepieces,” as recited in claim 1. In the exemplary embodiment, the “transmitted image is partially transmitted through the beam splitter 16, for observation by a user, and partially reflected by the beam splitter so that it is incident on an electronic imaging device 20.” (Application, p. 6, line 30 - p.7, line 2). The imaging

device is "preferably comprised of a CCD or charge coupled device and associated electronic circuitry to provide solid state imaging." (Application, p. 7, lines 27-30).

The present invention further provides for a camera control unit coupled to the video imaging device for creating a real time video signal representing images in the second optical viewing path, an encoder in the camera control unit which adds source identifying information as a unique identification code to the electronic image signal with a video adder, and a transmitter coupled to the camera control unit for wireless transmission of the real time video signals. In an exemplary embodiment, a "camera control unit" is shown in Figure 1 that includes "an encoder 22, a key pad 229, and transmitter 240. (Application, p. 8, lines 6-10) The "key pad 229 can be used to enter an identification code which distinguishes the source of the video signal ultimately transmitted to the central location from the other transmitted signals." (Application, p. 8, lines 14-20) The invention also comprises a remote receiver to receive the real time video signal from the transmitter, wherein the receiver can distinguish between a plurality of video signals transmitted from a plurality of camera control units. Figure 2 of shows an exemplary transmitter 22 that communicates with receiver 26, which is preferably at a remote location. A video monitor 80 is preferably provided at the remote location in order to permit viewing of the received electronic image signal. (Application, p. 7, lines 5-10) Further, the video signal with the source identifying information (as an on-screen display) is an input to transmitter 240, which establishes the wireless communication link with the central location. (Application, p. 8,

lines 23-28)

## **VI. ISSUES PRESENTED FOR REVIEW**

The issues presented for review by the Board of Patent Appeals and Interferences is:

Whether claims 1, 2, 4, 5, 13, and 16-30 are unpatentable under 35 U.S.C. §103(a),  
and whether claim 18 is indefinite under 35 U.S.C. § 112, second paragraph.

## **VII. GROUPING OF THE CLAIMS**

As supported by the following arguments, independent claims 1 and 23 are each  
independently patentable and do not stand or fall together.

Claim 1 recites:

A real time, multiple path imaging system, comprising:

an independent optical viewing device having at least one optical viewing path  
viewed through an eyepiece;

a beam splitter removably attached to said optical viewing device, wherein the beam  
splitter divides the at least one optical viewing path into a first and a second optical viewing  
paths;

an electronic video imaging device that receives an optical image from the second  
split beam path and converts the optical image into an electronic image signal, wherein the  
video imaging device is removably attached in alignment with the eyepiece without internal

modification of the basic optical viewing device and adjustable to accommodate varying sizes of eyepieces;

a camera control unit coupled to said video imaging device for creating a real time video signal representing images in said second optical viewing path;

an encoder in said camera control unit, wherein said encoder adds source identifying information as a unique identification code to the electronic image signal with a video adder;

a transmitter coupled to the camera control unit for wireless transmission of the real time video signals;

a remote receiver to receive the real time video signal from the transmitter, wherein the receiver can distinguish between a plurality of video signals transmitted from a plurality of camera control units.

However, unlike independent claim 1, claim 23 is a method to perform the claimed invention. For example, claim 23 recites transmitting an "electronic image signal to a camera control unit" and encoding the image signal instead of the claim 1 element of a transmitter for wireless transmission of "a real time video signal representing images in said second viewing path that is "created by a camera control unit." The "camera control unit" of claim 1 is for "creating a real time video signal" which is not an element of claim 23.

Further, claim 23 recites "receiving the second optical viewing path into a video camera", which is unlike claim 1 that recites "an electronic video imaging device.



In addition, each of the dependent claims is patently distinct from the independent claims from which they depend. More specifically, dependent claims 2, 4-5, 13, and 16-22 are patently distinct from independent claim 1. Further, dependent claims 24-30 are patentably distinct from independent claim 23, from which they depend.

Each dependent claim recites additional features, not defined in the respective independent claim. As discussed in greater detail below, the features defined by the dependent claims are not merely illustrations or examples, but patentable features which prevent the dependent claims from standing or falling with independent claims 1 and 23.

## **VIII. ARGUMENT**

### **1. INDEPENDENT CLAIM 1**

#### **THE STAUFF AND MCLENAHAN REFERENCES**

In the First, Final, and After-final Office Actions issued during prosecution of the present Application, the Examiner rejected every claim based on mere conclusory statements of obviousness. Appellant overcame the first rejections of obviousness in the June 5, 2002 Non-Final Office Action, which caused the Examiner to cite new art and issue new rejections in the Final Office Action. Appellant objects as prejudicial to the citation of new art for the first time in the Final Office Action. The Examiner alleges that Stauff would have been combined with McClenahan and Baxter to form the claimed invention. Applicant submits, however, that these references would not have been combined and even

if combined, the combination would not teach or suggest each and every element of the claimed invention.

The Examiner has repeatedly failed to provide evidence of a suggestion, teaching, or motivation to combine the cited references. The Examiner has attempted to identify in separate pieces of prior art each individual part claimed in the Application. This is insufficient to defeat patentability of the whole claimed invention. See *In Re Werner Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000). In *Kotzab*, the Federal Circuit admonished that "Close adherence" to analyzing the patentability of claims pursuant to section 103(a) by casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field is "especially important in cases where the very ease with which the invention can be understood may prompt one to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher." *Id.* (quoting *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 U.S.P.Q. (BNA) 303, 313 (Fed. Cir. 1983)).

As will be described more fully below, the Examiner "fell into the hindsight trap." *Kotzab* at 1371. As the case law makes clear the way to avoid the "subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. See *In Re Anita Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999). See also *Graham v. John*

*Deere Co.*, 383 U.S. 1, 18, 148 U.S.P.Q. (BNA) 459, 467, 15 L. Ed. 2d 545, 86 S. Ct. 684 (1966) ("strict observance" of factual predicates to obviousness conclusion required). This, the Examiner failed to do. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes Appellant's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight. *Dembiczak*, 175 F.3d at 999; See, e.g., *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 U.S.P.Q. (BNA) 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time."). The Examiner has failed to make a requisite showing of the teaching or motivation to combine the prior art references. The present obviousness rejections are impermissible and should be withdrawn. Appellant respectfully requests the Board to reverse the obviousness rejection to claim 1, as well as all of the rejections cited above, and order that the present Application be passed to issue.

Claim 1 recites:

A real time, multiple path imaging system, comprising:

an independent optical viewing device having at least one optical viewing path viewed through an eyepiece;

a beam splitter removably attached to said optical viewing device, wherein the beam splitter divides the at least one optical viewing path into a first and a second optical viewing paths;

an electronic video imaging device that receives an optical image from the second split beam path and converts the optical image into an electronic image signal, wherein the video imaging device is removably attached in alignment with the eyepiece without internal modification of the basic optical viewing device and adjustable to accommodate varying sizes of eyepieces;

a camera control unit coupled to said video imaging device for creating a real time video signal representing images in said second optical viewing path;

an encoder in said camera control unit, wherein said encoder adds source identifying information as a unique identification code to the electronic image signal with a video adder;

a transmitter coupled to the camera control unit for wireless transmission of the real time video signals;

a remote receiver to receive the real time video signal from the transmitter, wherein the receiver can distinguish between a plurality of video signals transmitted from a plurality of camera control units.

In the Final Office Action, the Examiner alleged that

Stauff reference does not have detail for optical instruments which attached a beam splitter.

...

[McClenahan] would be an advantage over Stauff's image system in that could quickly and easily redirect image signal to a video camera and makes a more compact and better balances training aid for remote

instructors. For that reason, it would have been obvious to one of ordinary skill in the art at the time to see the optical instrument device attached with a beam splitter for redirecting image signal to the video camera disclosed by Stauff.

The Staff reference does not explicitly states the camera control unit includes an encoder for adding source identifying information as a unique identification code to the electronic image signal.

The Baxter reference discloses in Figure 8 and 9, the imaging system includes a encoder (processor 70) adds camera identification to the electronic image signal and transmits to computer 16 (See Col. 7, lines 62-68). The Baxter reference is a evidence to one of ordinary skill in the art to see the an advantage of communication system has encoder to adds camera identification information to the electronic image signal to avoiding the information loss and easy identify a multiple signals inputted in the system. For that reason, it would have been obvious to see the camera control unit (5) includes an encoder for adding source identifying information as a unique identification code to the electronic image signal disclosed by Stauff. (Final Office Action, p. 3-5).

The Examiner has failed to make a requisite showing of the teaching or motivation to combine the prior art references. The Examiner has merely stated that each of the cited references "is an advantage" over each other reference and that "it would have been obvious to one of ordinary skill in the art at the time" to combine the references. Rather than pointing to specific information in Stauff, McClenahan, and Baxter that suggest the combination of the elements of the claimed invention, the Examiner instead described in detail the similarities and advantages between the references and the claimed invention, noting that one reference or the other--in combination with each other--described all of the limitations of the pending claims. Nowhere does the Examiner particularly identify any

suggestion, teaching, or motivation to combine the references, nor does the Examiner make specific--or even inferential--statements concerning the identification of the relevant art, the level of ordinary skill in the art, the nature of the problem to be solved, or any other facts that might serve to support a proper obviousness analysis. See *Dembiczak*, 175 F.3d at 1000; see, e.g., *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 U.S.P.Q.2D (BNA) 1626, 1630 (Fed. Cir. 1996).

To the contrary, the obviousness analysis in the Examiner's rejections are limited to a discussion of the ways that the multiple prior art references can be combined to read on the claimed invention. For example, the Examiner stated that

It is well known to transmit different signals with differing frequencies. Although Stauff discloses the output of a single trainee being displayed on the monitor, it would have been obvious to have more than one trainee operating the optical device at a single time. This would allow each trainee has more training time (by not having to wait for his/her "turn") as well as giving instructors the flexibility to compare the trainee's "side-by-side". Therefore, it would have been obvious to have more than one optical viewing device in the field at one time, wherein the output signals are distinguishable from each other- by frequencies transmitted by said camera control unit, for example.

Stauff reference does not have detail for optical instruments which attached a beam splitter.

McClenahan reference discloses in Figures 1 and 2, an optical system (10) for displaying a recording the same image of a target (12) as viewed by a shooter (14) through a rifle sight (16). The optical system (10) includes an optical beam splitter (20), wherein the beam splitter divides the at least one optical viewing path into a first and a second optical viewing paths; and a electronic video imaging device (color video camera 24) inside a waterproof housing (26). Hosing (26) attaches to rifle sight (16) (See Col 3. lines 1-5).

The electronic video imaging device that receives an optical image from the second split beam path and converts the optical image into an electronic image signal, wherein the video imaging device is removably attached in alignment with the eyepiece without internal modification of the basic optical viewing device and adjustable to accommodate varying sizes eyepieces as shown in Figure 2.

This would be an advantage over Stauff's image system in that could quickly and easily redirect image signal to a video camera and makes a more compact and better balances training aid for remote instructors. (Final Office Action, p. 3-5) (emphasis Appellant's).

The Examiner therefore states that it was an obvious design choice "to see the optical instrument device attached with a beam splitter for redirecting image signal to the video camera disclosed by Stauff." (Final Office Action, p. 5) Yet this reference-by-reference, limitation-by-limitation analysis fails to demonstrate how the Stauff and McClenahan references teach or suggest their combination to yield the claimed invention. See *Rouffet, In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2D (BNA) 1453, 1459 (Fed. Cir. 1998) (noting the Patent and Trademark Office Board of Patent Appeals and Interferences failure to explain, when analyzing the prior art, "what specific understanding or technical principle . . . would have suggested the combination"). Most if not all inventions arise from a combination of old elements. *In Re Werner Kotzab*, 217 F.3d at 1370. Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See *Id.* Therefore in a response to the First Office Action, Appellant asserted that

Applicant recognizes that there are individual prior art components to the present invention. Applicant states in the specification that "Such optical beam splatters can be provided in the form of prisms, which are well known in the optical field." See p. 7, line 12.

Applicant also recognizes that there are existing electronic means for converting an incident optical image received from the beam splitter into an electronic image signal." See p. 7, line 20., and even gives specific examples of such devices, "One example of such a device would be a 1/4" super-micro color CCD camera. . ." and that "Such imaging devices are well known to those of ordinary skill in the art." See p. 7, lines 23-30.

What applicant claims as the invention is the entire system or method to accomplish surveilling one or more subjects and viewing the surveilled objects from a remote receiver station, not the individual components, whether or not they are found in the prior art. As one skilled in the art will recognize, the unique integration of the components or steps to create the entire system or method is what is claimed, not the individual components or steps constituting the invention. (emphasis Appellant's).

## THE BAXTER REFERENCE

Further, the Examiner admits that "The Staff reference does not explicitly state the camera control unit includes an encoder for adding source identifying information as a unique identification code to the electronic image signal," and further states that

The Baxter reference discloses in Figure 8 and 9, the imaging system includes a encoder (processor 70) adds camera identification to the electronic image signal and transmits to computer 16 (See Col. 7, lines 62-68). The Baxter reference is a evidence to one of ordinary skill in the art to see the an advantage of communication system has encoder to adds camera identification information to the electronic image signal to avoiding the information loss and easy identify a multiple signals inputted in the system. For that reason, it would have been obvious to see the camera control unit (5) includes an encoder for adding source identifying information as a unique identification code to the electronic image signal disclosed by Stauff. (Final Office Action, p. 5).



Again, the Examiner states a limitation-by-limitation analysis of Baxter but fails to demonstrate how the Baxter "is a evidence [sic]" that one of ordinary skill in the art would combine with Stauff to teach or suggest the combination to yield the claimed invention. See *In re Fritch*, 972 F.2d 1260, 1265, 23 U.S.P.Q.2D (BNA) 1780, 1783 (Fed. Cir. 1992) (examiner can satisfy burden of obviousness in light of combination "only by showing some objective teaching [leading to the combination]"); *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2D (BNA) 1596, 1600 (Fed. Cir. 1988) (evidence of teaching or suggestion "essential" to avoid hindsight); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 297, 227 U.S.P.Q. (BNA) 657, 667 (Fed. Cir. 1985) (district court's conclusion of obviousness was error when it "did not elucidate any factual teachings, suggestions or incentives from this prior art that showed the propriety of combination"). See also *Graham*, 383 U.S. at 18, 148 U.S.P.Q. (BNA) at 467 ("strict observance" of factual predicates to obviousness conclusion required). Combining Stauff with McClenahan and Baxter, without evidence of such a suggestion, teaching, or motivation simply takes Appellant's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight. See, e.g., *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 U.S.P.Q. (BNA) 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time.").

Although it is well known that evidence of a suggestion, teaching, or motivation to

combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, see *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 U.S.P.Q.2D (BNA) 1626, 1630 (Fed. Cir. 1996), "the suggestion more often comes from the teachings of the pertinent references," *Rouffet*, 149 F.3d at 1355, 47 U.S.P.Q.2D (BNA) at 1456. The range of sources available, however, does not diminish the requirement for actual evidence. Here, the Examiner has cited no such evidence. That is, the showing must be clear and particular. *Dembiczak*, 175 F.3d at 999. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." *Id.*

Since the Examiner cannot point to a proper evidence of a suggestion, teaching, or motivation to combine the prior art references cited against the pending claims, the Examiner's conclusion of obviousness cannot stand. See *C.R. Bard*, 157 F.3d at 1352, 48 U.S.P.Q.2D (BNA) at 1232; *Rouffet*, 149 F.3d at 1359, 47 U.S.P.Q.2D (BNA) at 1459; *Fritch*, 972 F.2d at 1265, 23 U.S.P.Q.2D (BNA) at 1783; *Fine*, 837 F.2d at 1075, 5 U.S.P.Q.2D (BNA) at 1600; *Ashland Oil*, 776 F.2d at 297, 227 U.S.P.Q. (BNA) at 667.

Appellant further asserts that the Examiner's position is flawed as a matter of fact. The Examiner alleged in the Final Office Action, in the middle of Page 4, that "it would have been obvious to have more than one trainee operating the optical device at a single time. This would allow each trainee has more training time (by not having to wait for his/her 'turn') as well as giving instructors the flexibility to compare the trainee's 'side-by-

side'. Therefore, it would have been obvious to have more than one optical viewing device in the field at one time, wherein the output signals are distinguishable from each other- by frequencies transmitted by said camera control unit, for example” when discussing the Stauff reference.

Appellant contends that it would not have been obvious to have more than one trainee being monitored by a single plurality of optical monitor. In fact, monitoring of more than one trainee by an instructor is contrary to the teachings of Stauff. Stauff discloses that “during manipulations by the trainee operator 1 it will be possible for the instructor 10... to advise the trainee at all times either by a direct link or by telephone or radio link;” (See Column 4, lines 13 -19) and that “One or more persons, whether instructors or trainees, can observe from a distance and under good conditions what the trainee operator or operators see and can note the smallest errors between the reticule and the aiming point on the target. This continuous supervision further enables the instructors to give the necessary recommendations while the trainee is manipulating his instrument.” (See Column 4, lines 45-53). For this to occur, a continuous one-to-one correspondence of trainee to remote monitoring station/trainer is required during the training period. Training trainees “side-by-side”, as suggested above, would require additional complete sets of disclosed equipment and additional trainers. This necessitates that each optical viewing device be coupled with its own, dedicated remote receiver (rather than to a receiver which can distinguish between a plurality of video signals transmitted from a plurality of camera control units as is claimed

in claim 1) to accomplish the task of training as described. Therefore, the addition of a system by which a remote receiver receives a plurality of signals, requiring a single instructor to divide his/her attention between a plurality of trainees would not have been obvious at the time. In fact, it would have been considered detrimental to the training method disclosed.

The Examiner also alleged that the disclosures in the McClenahan reference that pertain to the addition of a beam splitter and more compact video camera arrangement would be an advantage over Stauff's image system and that "it would have been obvious...to see the optical instrument device attached with a beam splitter for redirecting the image signal to the video camera disclosed by Stauff." (Final Office Action, p. 5). Appellant cites from the Stauff reference that a key component of the Stauff system includes a "television camera fixed to the optical aiming instrument, said camera being provided with a reticle the optical axis of which is boresighted identically with said optical instrument." (See Column 2 lines 30-33). In addition, it is disclosed that "Preferably, this reticle includes angular error marks for enabling the aiming errors made by the trainee operator to be measured on the scope" (See Column 3, lines 14-18).

The addition of the beam splitter and camera assembly as the Examiner suggests would create a situation in which the only image the camera could receive would be the one which is provided by the beam splitter. This optical image originates from the scene which is viewed through the optical instrument. The optical instrument has already in place a

reticle for aiming, the optical image of which would be combined with the scene when viewed through the optical instrument. This composite optical image would then be received by the camera via the split beam path. Thus, the disclosure in the Stauff reference for the camera to be provided with its own reticle would not be practical because of the confusion that would occur from the resultant view of two reticles being sent to the monitoring station by the camera. In addition, if there would be no reticle on the camera, it would be impossible for such reticle to receive the addition of angular error marks as is the stated preferred embodiment. Therefore, the addition of the beam splitter and camera assembly as disclosed in the McClenahan reference would have been neither obvious, nor compatible with the Stauff system.

Further, the Examiner has admitted that "the Staff reference does not explicitly states the camera control unit includes an encoder for adding source identifying information as a unique identification code to the electronic image signal," and alleges that "The Baxter reference discloses in Figure 8 and 9, the imaging system includes a encoder (processor 70) adds camera identification to the electronic image signal and transmits to computer 16 (See Col. 7, lines 62-68)." (Final Office Action, p. 5). Applicant respectfully submits that Baxter would not have been combined with Stauff as alleged by the Examiner and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Baxter's discloses an electronic camera head where horizontal and vertical

synchronizing signals and pixel clock signals are generated and transmitted along with analog video signals generated by an imager to a host processor on a computer. The electronic camera head "is connected, via an electric cable," to the remote host processor. (Baxter, col. 2, lines 25-35) Baxter addressed a problem with converting the various formats of encoding and decoding standards used in color television analog signals. "With each conversion and reconversion of the video signal comes a degradation in the quality of the signal. (col. 1, lines 5-10 and 55-60), and to address this problem, the signals are converted and transmitted in digital video signals using large electric cables (col. 2, lines 1-5). Figure 1 shows the Baxter system as a desktop personal computer 16 with desktop camera 20. The processor 70 inside the camera unit 12 provides data in the transmission using vertical blanking intervals such as camera identification (col. 7, lines 62-67).

The deficiencies of Stauff have been discussed above. Baxter clearly fails to make up for Stauff's deficiencies. This reference is not relevant to the claimed real time, multiple path imaging system that includes "an encoder in said camera control unit, wherein said encoder adds source identifying information as a unique identification code to the electronic image signal with a video adder; a transmitter coupled to the camera control unit for wireless transmission of the real time video signals," as recited in claim 1. The Examiner has failed to use a comparison of Baxter with the claimed adding of source identifying information as a unique identification code in the claimed invention into context with the remaining claim elements. The claimed image signal, containing the encoding, is wirelessly

transmitted in real-time to a remote receiver, where the receiver can distinguish between a plurality of video signals transmitted from a plurality of camera control unit. Baxter's video camera system containing information in a blanking signal cannot be effectively transmitted wirelessly and cannot be transmitted simultaneous to other signals to a remote transmitter.

The Examiner alleged that

The Baxter reference is a evidence to one of ordinary skill in the art to see the an advantage of communication system has encoder to adds [sic] camera identification information to the electronic image signal to avoiding the information loss and easy identify a multiple signals inputted in the system. For that reason, it would have been obvious to see the camera control unit (5) includes an encoder for adding source identifying information as a unique identification code to the electronic image signal disclosed by Stauff. (Final Office Action, p. 5)

However, it is clear that the Examiner has failed to account for the fact that Baxter is a different technology for a different purpose and further teaches against the Examiner's urged combination. As is established above, because the Stauff system was designed to facilitate a "one camera to one receiver/trainer" mode of training for each trainee, different frequencies of signal transmission between different transmitters and receivers would be unnecessary and useless, further, the addition of an encoder would have been meaningless and therefore neither obvious nor cost effective.

Baxter further requires "an electric cable for carrying the video signal waveform," (Claim 1: Col. 8, line 41) and can neither be transmitted wirelessly nor to a remote receiver in the field, such as receiver 26 shown in Appellant's military surveillance team 104, 114,

124 in Figure 2. This is because Baxter is an indoor, desktop computer video editing system that must have an electric cable with high bandwidth to maintain quality of signal, “the analog waveform signal is then conveyed using a video buffer 44 over coaxial cable 13” (col. 6, lines 40-41; see also col. 3, lines 49-53). Baxter must have a short, electric cable to maintain signal quality and avoid attenuation and noise in the signal: “Leaving the reset pulse carrier makes processing of the transmitted video signal more difficult, particularly if the length of the electric cable 13 is long since the bandwidth needed to transmit the signal without distortion is greater.” (Baxter, col. 5, lines 56-60) (emphasis Appellant’s). Baxter’s purpose is for video quality for video editing with “noise free transmissions” (col. 2, line 47).

The advantage of Baxter is that “the quality of the raw video image data from the video imaging device is maintained and important information is not lost during conversion/reconversion from analog to digital and back to analog format.” (col. 2, lines 48-53). Certainly, one skilled in the art would not find a suggestion in Baxter to combine with Stauff to yield the claimed invention of wirelessly transmitting an encoded signal to a remote receiver using the cable and desktop computer of Baxter. Baxter’s video signaling and technology for avoiding information loss over an electric cable for a desktop video editing system is irrelevant to the claimed invention.

Further, Baxter teaches against Appellant’s claimed combination for “a remote receiver to receive the real time video signal from the transmitter, wherein the receiver can



distinguish between a plurality of video signals transmitted from a plurality of camera control units," as recited in claim 1, because Baxter states that "only one camera head is active at one time," (col. 8, lines 7-8). As is clear, the claimed combination provides for the possibility of distinguishing signals from a plurality of camera control units transmitted at the same time (see Application, Fig. 2, Fig. 3).

These limitations in Baxter teach against combining with Stauff to yield Appellant's invention. The Examiner has once again performed a limitation-by-limitation analysis of Baxter but fails to demonstrate how the Baxter "is a evidence [sic]" that one of ordinary skill in the art would combine with Stauff to teach or suggest the combination to yield the claimed invention. See *In re Fritch*, supra.

The Examiner's conclusory and technically flawed obviousness rejections cannot stand. "A rejection cannot be predicated on the mere identification in [Baxter] of individual components of claimed limitations. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed." *Kotzab*, 217 F.3d 1at 1371. Therefore, the claimed invention of independent claim 1 is not obvious over Stauff in view of McClenahan and Baxter.

## **2. INDEPENDENT CLAIM 23**

Independent claim 23 recites a method for performing the system in claim 1.

Appellant incorporates the arguments, presented above for claim 1, as arguments for claim 23. As discussed above, the Examiner "fell into the hindsight trap." *Kotzab*, 217 F.3d at 1371. In rejecting claim 23, the Examiner failed to make a rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. See *In Re Anita Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999). See also *Graham v. John Deere Co.*, 383 U.S. 1, 18, 148 U.S.P.Q. (BNA) 459, 467, 15 L. Ed. 2d 545, 86 S. Ct. 684 (1966) ("strict observance" of factual predicates to obviousness conclusion required).

Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes Appellant's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight. *Dembiczak*, 175 F.3d at 999; See, e.g., *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 U.S.P.Q. (BNA) 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time.").

The Examiner has failed to make a requisite showing of the teaching or motivation to combine the prior art references. The present obviousness rejection is impermissible and should be withdrawn. Appellant respectfully requests the Board to reverse the obviousness rejection to claim 23 and order the Examiner to pass the present Application to issue.

### **3. DEPENDENT CLAIMS**

While independent claims 1 and 23 are patentable over Stauff in view of

McClenahan and Baxter, as discussed above, dependent claims 2, 4-5, 13, 16-22, and 24-30 are patentably distinct over the cited references, as these dependent claims recite elements not taught or suggested by the Examiner's urged combinations of references.

#### **DEPENDENT CLAIMS 4 AND 25**

While independent claims 1 and 23 are patentable, as discussed above, dependent claims 4 and 25 are is patentably distinct over independent claims 1 and 23, respectively, as claim 4 recites elements "said video signals are distinguishable from one another by data in an on screen display added to said respective video signals by said camera control unit."

The Examiner alleges that claims 4 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Stauff et al U.S. Patent 5,486,853, in view of McClenahan et al U.S.

Reg. No. H1, 891, Baxter et al U.S. Patent 5,486,853, and Rod U.S. Patent 5,924,868. The Examiner admits that the urged combination of Stauff, McClenahan and Baxter fails to "explicitly" state that "video signals are distinguishable from one another by data in an on screen display," and that Rod discloses in Figure 3, the system includes cameras and display eyewear and display monitors for use by the shooter and/or the instructor. A head mounted camera (72) provides a video signal (74) to camera controller (76) and forward to split screen processor (80). A camera (82) provides a video signal to split screen processor (80). The video monitor can display each of the image signals simultaneously.

Appellant asserts that Rod would not have been combined with Stauff, McClenahan

and Baxter, however even if combined Rod fails to make up for the deficiencies of Stauff, McClenahan and Baxter.

Further, the Examiner alleges at the bottom of Page 7 of the Final Office Action that the Rod reference discloses a system wherein a video monitor can display a plurality of images simultaneously. At the top of Page 8, the Examiner asserts, "This would be an advantage over Stauff's image system in that the instructors could quickly and easily monitor the [plurality] of operators in one screen. For that reason, it would have been obvious to one of ordinary skill in the art at the time to see video signals are distinguishable from one another by data in an on screen display by said camera control unit disclosed by Stauff."

The Examiner is incorrect. As described above regarding claim 1, the Examiner has performed a reference-by-reference, limitation-by-limitation analysis that fails to demonstrate how the Stauff, McClenahan, Baxter, and Rod references teach or suggest their combination to yield the claimed invention. See *Rouffet, In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2D (BNA) 1453, 1459 (Fed. Cir. 1998) (noting the Patent and Trademark Office Board of Patent Appeals and Interferences failure to explain, when analyzing the prior art, "what specific understanding or technical principle . . . would have suggested the combination"). Most if not all inventions arise from a combination of old elements. *In Re Werner Kotzab*, 217 F.3d at 1370. Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed

is insufficient to defeat patentability of the whole claimed invention. See *Id.*

Here, the Examiner has cited no evidence urging the combination with Rod. That is, the showing must be clear and particular. *Dembiczak*, 175 F.3d at 999. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." *Id.*

The Applicant points out that the Stauff reference states "It is another important teaching of this invention that the instructor 10 has available a set of transparent grids such as the grid 13 shown in dash lines on the drawing and each bearing a mark 14 representing the size of a target of given dimensions at a given range. The instructor 10 selects the appropriate grid 13 and places it before the screen of display unit 9, in the position shown in dash lines in the drawing. Once the transparent grid 13 is in position in front of the scope, the instructor 10 can evaluate the aiming errors of trainee operator 1 and make the camera reticle 15 coincide with the grid by operating on the image framing knobs 16 of scope 9." (See Column 3 lines 48 through 61).

As is clear, if more than one instructor made simultaneous use of a single monitoring scope to view and evaluate a plurality of trainees/images, including the use of a separate transparent grid by each instructor (a point which itself is impractical), it would not have been possible for each instructor to make all of the camera reticles coincide with all of the grids at the same time on the lone monitoring scope. For this reason, as well as the reasons cited in the first point of discussion on claim 1 above, adding a video monitor as in the Rod

reference that can display a plurality of signals simultaneously to the equipment disclosed by Stauff would not have been obvious, desirable or in fact, possible.

Since the Examiner cannot point to a proper evidence of a suggestion, teaching, or motivation to combine the prior art references cited against the pending claims, the Examiner's conclusion of obviousness of claims 4 and 25 cannot stand. See *C.R. Bard*, 157 F.3d at 1352, 48 U.S.P.Q.2D (BNA) at 1232.

#### **DEPENDENT CLAIM 16**

The Examiner alleged that claim 16 is unpatentable under 35 U.S.C. 103(a) over Stauff et al. U.S. Patent 3,798,796 in view of McClenahan et al. U.S. Reg. Number H1, 891, Baxter et al. U.S. Patent 5,486,853 and Jenkins et al U.S. Patent 5,644,386. Claim 16 recites "The imaging system of claim 1, wherein: said wireless transmission comprises a satellite link." The Examiner admits that Stauff "does not explicitly states the wireless transmission comprises a satellite link instead of radio link and the data represents information from a global positions sensor," but that "Jenkins reference discloses in Figure 1, a system (10) shown for producing, processing, displaying, and transmitting images of one or more targets in a target scene 12. A Global Positioning System (GPS) transmitter (18) transmits a signal fro providing accurate position data for the vehicle (14). The processing center (17) manipulates the resulting data into packets of information and transmits these packets of information by a limited bandwidth communications link (20) to

a remote site (22) for display on a display (24) (See Col. 3, lines 49-68)."

Appellant asserts that Jenkins would not have been combined with Stauff, however even if combined, Jenkins fails to make up for the deficiencies of Stauff. The Examiner has alleged that

This would be an advantage over Stauff's image system in that the remote viewer can communicate with the operators without the distance limitation and provide high quality imaging digital data and accurate target position data in real time. For that reason, it would have been obvious to one of ordinary skill in the art at the time to see wireless transmission comprises a satellite link disclosed by Stauff (Final Office Action, p. 8)

The examiner has made merely conclusory remarks regarding alleged advantages of combining the references with no basis of evidence to combine. In fact, the Examiner's advantages are incorrect. There would be no advantage to knowing "accurate target position data in real time" in Stauff because knowing the target location is not a purpose of the Stauff aiming test. Stauff discloses that "it will be possible for the instructor 10, after he has placed before the scope 9 the appropriate transparent grid 13 that helps him to observe aiming errors irrespective of the size of the actual target, to advise the trainee at all times either by a direct link or by telephone or radio link." (col. 4, lines 12-20). In other words, Stauff is only focused on an aiming test by a trainee aiming and watching the overlay grid so that the instructor can instruct the trainee from a distance. Contrary to the Examiner's assertions, knowing the location of the target or shooter is irrelevant to Stauff and therefore would not be an advantage to combine.

Further, Stauff already discloses that the instructor advises "the trainee at all times

either by a direct link or by telephone or radio link.” (col. 4, lines 12-20) Adding a wireless packet transmission of Jenkins would not be an advantage because this is still a local area transmission of packetized data. The Examiner has no basis to state that Jenkins provides transmissions “without the distance limitation and provide high quality imaging digital data” since these terms and disclosures are not found in Jenkins. The Examiner is also incorrect that “it would have been obvious to one of ordinary skill in the art at the time to see wireless transmission comprises a satellite link disclosed by Stauff” because Jenkins does not disclose using a satellite for wireless transmissions. The Jenkins disclosure is irrelevant or cumulative to Stauff and therefore not obvious to combine. The Examiner’s reasons to combine are merely conclusory which lacks proper evidence and is impermissible is hindsight.

Thus, there would be no “advantage” or any reason to suggest combining Jenkins with Stauff to yield the claimed invention. As described above regarding claim 1, the Examiner has performed a reference-by-reference, limitation-by-limitation analysis that fails to demonstrate how the Stauff, McClenahan, Baxter, and Jenkins references teach or suggest their combination to yield the claimed invention. See *Rouffet, In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2D (BNA) 1453, 1459 (Fed. Cir. 1998) (noting the Patent and Trademark Office Board of Patent Appeals and Interferences failure to explain, when analyzing the prior art, “what specific understanding or technical principle . . . would have suggested the combination”). Most if not all inventions arise from a combination of old



elements. *In Re Werner Kotzab*, 217 F.3d at 1370. Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See *Id.*

Here, the Examiner has cited no evidence urging the combination of Stauff with Jenkins. That is, the showing must be clear and particular. *Dembiczak*, 175 F.3d at 999. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." *Id.* Since the Examiner cannot point to a proper evidence of a suggestion, teaching, or motivation to combine the prior art references cited against the pending claims, the Examiner's conclusion of obviousness of claim 16 cannot stand. See *C.R. Bard*, 157 F.3d at 1352, 48 U.S.P.Q.2D (BNA) at 1232.

#### **DEPENDENT CLAIM 18**

The Examiner rejected claim 18 under 35 U.S.C. §112, second paragraph, because of confusion with a similar element recited in parent claim 1. Claim 18 recites

an encoder in the camera control unit to encode the electronic image signal,

wherein the encoder adds source identifying information as a unique

identification code to the electronic image signal.

Appellant attempted to correct this informality in an After-Final Amendment by

removing the element from claim 1. However, for reasons unexplained the Examiner refused to enter an amendment to claim 1 removing the claim element. Appellant asserts that claim 1 is patentable over the prior art without the "encoder" element, and if the element is removed from claim 1, claim 18 is also patentable over the prior art.

**DEPENDENT CLAIMS 19-20 AND 27-28**

The Examiner alleged that claims 19-20 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stauff et al. U.S. Patent 3,798,796 in view of McClenahan et al. U.S. Reg. Number H1, 891, Baxter et al. U.S. Patent 5,486,853 and Piety et al. U.S. Patent 5,637,871. Claim 18 recites

The imaging system of claim 1, further comprising:

an encoder in the camera control unit to encode the electronic image signal,  
wherein the encoder adds source identifying information as a unique  
identification code to the electronic image signal.

and claim 19 recites

The system of claim 18, wherein: the encoder adds the source  
identifying information with a video adder as an on-screen display for an  
output device.

The Examiner admits that the urged combination of Stauff, McClenahan and Baxter fails to "explicitly states the source identifying information with video displays on screen and a key pad decoder adds the identifying information to the video signal," and that

The Piety reference discloses in Figures 4 and 5, an imaging system has a hardware keypad for enabling the user to add identification information, such time and date to video image signal and display the source identifying information with video on user interface screen (300) (See Col. 11, lines 49-55 and Col 10, lines 25-30).

Appellant asserts that Piety would not have been combined with Stauff, McClenahan and Baxter, however even if combined Rod fails to make up for the deficiencies of Stauff, McClenahan and Baxter. However, these passages from Piety merely disclose using soft keys 304, not a keyboard, for "enabling the user to page through a variety of navigation screens" on the "VDC user interface screen 300" as shown in Figure 5, "without the use of a hardware keypad." (Piety, col. 10, lines 15-32). As is clear, a user may enter data on interface screen 300 at the display end of the system. This is a compared opposite end of the claimed system where the "encoder adds the source identifying information with a video adder as an on-screen display for an output device," as recited in claim 20. The claimed encoder is located "in said camera control unit," 103 not in the output device 80 (Application, Fig. 2). Adding a code from the output device 80 in the claimed system does not even make sense. The purpose for the source identifying information is so that the

“receiver can distinguish between a plurality of video signals transmitted from a plurality of camera control units,” as recited in claim 1.

The Examiner has alleged:

. . . this would be an advantage to have key pad decoder for entering user's desired source unique identification of camera to the video image data and transmit to remote screen which user can identify the information on the display. For that reason, it would have been obvious to see the camera control unit (5) includes an key pad decoder for adding source identifying information as a unique identification code to the electronic image signal and displaying both data on the screen disclosed by Stauff. (Final Office Action, p. 9)

As described above, there would be no purpose for the user to enter a code at the output device 80 or any way for the user to even know which signal was from which source. Thus, there would be no “advantage” or any reason to suggest combining with the other references to yield the claimed invention. As described above regarding claim 1, the Examiner has performed a reference-by-reference, limitation-by-limitation analysis that fails to demonstrate how the Stauff, McClenahan, Baxter, and Piety references teach or suggest their combination to yield the claimed invention. See *Rouffet, In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2D (BNA) 1453, 1459 (Fed. Cir. 1998) (noting the Patent and Trademark

Office Board of Patent Appeals and Interferences failure to explain, when analyzing the prior art, "what specific understanding or technical principle . . . would have suggested the combination"). Most if not all inventions arise from a combination of old elements. *In Re Werner Kotzab*, 217 F.3d at 1370. Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See *Id.*

Here, the Examiner has cited no evidence urging the combination with Piety. That is, the showing must be clear and particular. *Dembiczak*, 175 F.3d at 999. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." *Id.* Since the Examiner cannot point to a proper evidence of a suggestion, teaching, or motivation to combine the prior art references cited against the pending claims, the Examiner's conclusion of obviousness of claims 19-20 and 27-28 cannot stand. See *C.R. Bard*, 157 F.3d at 1352, 48 U.S.P.Q.2D (BNA) at 1232.

## IX. CONCLUSION

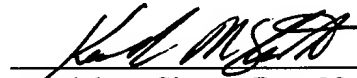
In view of the foregoing, Appellants submit that claims 1, 2, 4, 5, 13, and 16-30, all the claims presently pending in the application, are patentably distinct from the prior art of record and in condition for allowance. Thus, the Board is respectfully requested to remove the rejections of claims 1, 2, 4, 5, 13, and 16-30.

Appellants' Brief on Appeal  
09/171,018

Please charge any deficiencies and/or credit any overpayments necessary to enter this  
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Respectfully submitted,

Dated: 2-25-04



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**APPENDIX**

1. A real time, multiple path imaging system, comprising:

an independent optical viewing device having at least one optical viewing path viewed through an eyepiece;

a beam splitter removably attached to said optical viewing device, wherein the beam splitter divides the at least one optical viewing path into a first and a second optical viewing paths;

an electronic video imaging device that receives an optical image from the second split beam path and converts the optical image into an electronic image signal, wherein the video imaging device is removably attached in alignment with the eyepiece without internal modification of the basic optical viewing device and adjustable to accommodate varying sizes of eyepieces;

a camera control unit coupled to said video imaging device for creating a real time video signal representing images in said second optical viewing path;

an encoder in said camera control unit, wherein said encoder adds source identifying information as a unique identification code to the electronic image signal with a video adder;

a transmitter coupled to the camera control unit for wireless transmission of the real time video signals;

a remote receiver to receive the real time video signal from the transmitter, wherein the receiver can distinguish between a plurality of video signals transmitted from a plurality of camera control units.

2. The imaging system of claim 1, wherein:

the eyepiece terminates at least one of said at least one optical viewing paths, said beam splitter being aligned with said eyepiece.

3. (Cancelled)

4. The imaging system of claim 1, wherein:

said video signals are distinguishable from one another by data in an on screen display added to said respective video signals by said camera control unit.

5. The imaging system of claim 1, wherein:

said video signals are distinguishable from one another by respective transmission carrier frequencies transmitted by said camera control unit.

Claims 6-12. (Cancelled)



13. The imaging system of claim 1, further comprising:

a viewing screen connected to the receiver and terminating said second split beam path, said viewing screen having a viewing surface on which said second split beam path is substantially centrally disposed.

Claim 14 and 15. (Cancelled)

16. The imaging system of claim 1, wherein:

said wireless transmission comprises a satellite link.

17. The imaging system of claim 1, wherein:

the optical viewing device comprises one of the following: a monocular, a binocular, or a periscope.

18. The imaging system of claim 1, further comprising:

an encoder in the camera control unit to encode the electronic image signal, wherein the encoder adds source identifying information as a unique identification code to the electronic image signal.

19. The system of claim 18, wherein:

the encoder adds the source identifying information with a video adder as an on-screen display for an output device.

20. The system of claim 18, wherein:

the encoder comprises a key pad for entering a unique identification code that is received by a key pad decoder which adds characters generated by the code to the electronic video signal through a video adder.

21. The system of claim 1, further comprising:

a decoder in the receiver to decode the encoded electronic video signal, wherein the decoder and receiver supply a base band video signal to an output device.

22. The system of claim 1, wherein:

the beam splitter and the electronic video imaging device are mounted in a circular member having an inner ring that removably attaches to the eyepiece of the optical viewing device, wherein the ring is replaceable with alternate rings of varying diameter to accommodate varying diameters of alternate eyepieces.

23. A method for real time, multiple path imaging, comprising:
- observing an image of a subject through an eyepiece of an optical viewing device;
  - directing the image through optical beam splitter that divides the image into first and second optical viewing paths;
  - receiving the second optical viewing path into a video camera that is removably attached in alignment with the eyepiece without internal modification of the basic optical viewing device, wherein the video camera member is adjustable to accommodate varying sizes of eyepieces and converts the optical image into an electronic image signal;
  - transmitting the electronic image signal to a camera control unit;
  - encoding the electronic image signal in the camera control unit with an encoder, wherein the encoder enters source identifying information as a unique identification code that is added to the electronic image signal as an onscreen display with a video adder;
  - transmitting the electronic image signal and added source identifying information in real time through a wireless transmitter to a remote receiver;
  - distinguishing between a plurality of electronic image signals transmitted from a plurality of camera control units and received at the receiver.

24. The method of claim 23, wherein:
- the first optical viewpath divided by the beam splitter is terminated by the eyepiece, said beam splitter being aligned with the eyepiece.

25. The method of claim 23, further comprising:

distinguishing a plurality of video signals received by the receiver from one another by data in an on screen display added to said respective video signals by the camera control unit.

26. The method of claim 23, further comprising:

distinguishing a plurality of video signals from one another by respective transmission carrier frequencies transmitted by said camera control unit.

27. The method of claim 23, wherein:

encoding the electronic image signal adds the source identifying information with a video adder as an on-screen display for an output device.

28. The method of claim 23, wherein:

the electronic image signal is encoded by entering a unique identification code with a key pad which adds coded characters to the electronic video signal through a video adder.

29. The method of claim 23, further comprising:

decoding the encoded electronic video signal with a decoder in the receiver, wherein

the decoder and receiver supply a base band video signal to an output device.

30. The method of claim 23, further comprising:

mounting the beam splitter and the electronic video imaging device in a circular member having an inner ring that removably attaches to the eyepiece of the optical viewing device, wherein the ring is replaceable with alternate rings of varying diameter to accommodate varying diameters of alternate eyepieces.